

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000648**Date Inspected:** 17-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi, Xu Liang Zhang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Caltrans mock up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Dan Hernandez was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up 89.00, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item	Description	WBS	Dwg No.	Status
1	Mock-Up 89.00, skin plate B			lift brackets completed
	Caltrans QA Inspector observed shielded metal arc welding (SMAW) of fillet welds on temporary lifting brackets to plate mp505. The welder was observed welding in the 2f position using a chipping hammer and wire brushing during interpass weld cleaning. The approved welder has designated welder stamp ID 049804. The welder is using welding procedure specification (WPS) WPS-B-P-2112. Caltrans QA Inspector measured current welding parameters at approximately 171 amps and 150 millimeters per minute (mm/min) travel speed.			

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2 89 M Strut Assembly

In Progress

Caltrans QA Inspector observed SMAW in progress of fill passes on plates P913-1 to SA24-1 weld 9A MUB-MA21. The weld joint is a Complete Joint Penetration (CJP) double bevel butt-joint in the 1G position. The approved welder # 049804 was using approved WPS, WPS-B-T-3211-TC-U5B. Caltrans QA Inspector observed current welding parameters at approximately 252 amps, 25 volts and 170 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SMAW welding consumable is verified and identified as classification E9018 H4R Excalibur 4.8mm diameter. An electrode oven was observed by Caltrans QA Inspector in use during the welding process. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Sha Zhi and Bureau Veritas Inspector, Mr Xu Liang Zhang were observed monitoring welding activities at the workstation.



3 89M Stiffener plates

cleaning at weld joint co

Caltrans QA Inspector observed ZPMC cleaning the weld zone of stiffener plate's mp531-1 and mp531-2 with an sanding disk.

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Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
